

## REMARKS

Claims 1-18 are pending in the present Application. Claim 1 has been amended, Claim 2 has been canceled, and no claims have been added, leaving Claims 1 and 3-18 upon entry of the Amendment. A Request for Continuing Examination under 37 CFR § 1.114 also accompanies this amendment.

Claim 1 has been amended to include the limitations of Claim 2. Support for the amendment can be found at least in original Claim 2, Claim 12, and in the Specification (published as PCT/KR2004/000442) on p. 7, lines 2-12. Accordingly, Claim 2 is canceled herewith. No new matter has been introduced with this Amendment.

Reconsideration and allowance of the claims are respectfully requested in view of the above Amendments and the following remarks.

### Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 3 and 16-18 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over KP 2000-0075953 (KP '953). Applicants respectfully traverse this rejection.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987). Also, establishing a prima facie case of obviousness under 35 U.S.C. § 103(a) requires that all elements of the invention be disclosed in the prior art. *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

The amended independent Claim 1 requires, *inter alia*, a binder comprising composite polymer particles wherein the polymer particle comprises the polymer (a), and the polymer (b) and/or the polymer (c) in turn, starting from the inside of the binder.

KP '953 does not anticipate or render obvious independent Claim 1, because KP '953 fails to disclose or suggest at least the polymer particle comprises the polymer (a), and the polymer (b) and/or the polymer (c) in turn, starting from the inside of the binder. KP'953 discloses a binder for cells containing particles of composite polymer such that two or more polymers having different chemical structures form a heterogeneous phase structure; it does

not teach or suggest how the two or more polymers are arranged in the binder. The Examiner has not alleged that KP '953 discloses or suggests how the two or more polymers are arranged in the binder. Therefore, KP '953 cannot anticipate independent Claim 1 of the present application. Further, Claims 3 and 16-18 all ultimately depend from Claim 1 and are therefore not anticipated. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims over KP '953.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-18 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Japanese Patent No. 05-074461 ("Yoshino") in view of Japanese Patent No. 10-302797 ("Noritake"). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Independent Claim 1 is not obvious over Yoshino in view of Noritake because the references fail to teach or suggest all elements of the claim. Yoshino discloses neither that the polymer particles have a structured form of two or more phases having different physical properties nor that a binder comprises composite polymer particles wherein the polymer particle comprises the polymer (a), and the polymer (b) and/or the polymer (c) in turn, starting from the inside of the binder. Noritake discloses a binder contains a particle having core-shell structure of which the core is made of a copolymer having glass transition temperature in the range -100 to 0 °C, and of which the shell is made of a copolymer with glass transition

temperature in the -5 to 50 °C. Noritake, Abstract. The alleged combination of the references fails to disclose or suggest at least that a binder comprising composite polymer particles wherein the polymer particle comprises the polymer (a), and the polymer (b) and/or the polymer (c) in turn, starting from the inside of the binder, an element required by independent Claim 1. Therefore, independent Claim 1 is not obvious over Yoshino in view of Noritake. Claims 3-18 all ultimately depend from Claim 1. Claim 2 has been canceled, rendering the rejection for this claim moot.

With respect to the Examiner's assertion that the alleged combination of the references "arrive at the subject matter of instant Claim 1 and dependent Claims 2-3 (p. 6, Office Action dated November, 28, 2006)," Applicants respectfully submit that the Examiner has failed to provide any basis for the assertion. While Yoshino discloses a latex polymer binder, and Noritake discloses core-shell polymer structures having a lower Tg core and a higher Tg shell as described above, Applicants find no disclosure in either Yoshino or Noritake regarding either a three polymer component composition as claimed in amended Claim 1, or any instruction in the references (beyond the two layer core-shell polymers disclosed in Noritake) as to how the polymers are arranged in the binder. Yoshino, Abstract and p. 4, Table 1; Noritake, Abstract. Therefore, this limitation of multiple polymers arranged as disclosed in the instant specification is not met by the combination of the references.

Additionally, even if assuming that all elements of an invention are disclosed in the references, which it is not, the Examiner has failed to establish a prima facie case, because the references *viewed by themselves and not in retrospect*, do not provide a motivation to combine and/or provide a reasonable expectation of success. It has been held that "[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification" *GoLight, Inc. v. Wal-Mart Stores, Inc.*, --F.3d--, No. 02-1608 (Fed. Cir. January 20, 2004). Neither Noritake nor the binder art as a whole provide a reason for one of ordinary skill in the art to modify Yoshino in the manner required to meet Claim 1. There is no teaching or suggestions to combine elements of the references to produce the present invention. In addition, there is no teaching or suggestion in the references that provides a reasonable expectation of success. The present invention is thus

nonobvious.

Further, Applicants respectfully disagree with the Examiner's assertion that "it is impossible to present 'unexpected beneficial properties' (of the binder according to the present application) because it is not clear which exactly values of the above mentioned properties are superior or beneficial." (p. 5, Office Action dated November 11, 2006).

Applicants submit that the specification specifically discloses that a binder according to the present application has unexpected beneficial properties and provides comparative evidence demonstrating those properties. It is disclosed that a binder having two or more phases, that is, a binder according to the present application, can provide a higher adhesive strength, an excellent cell property, and a better coating property. (Specification, p. 2, lines 19-22).

The specification also discloses comparative data supporting that a binder of the present application provides an excellent cell property. Examples 1, 2, and 4 to 17 demonstrate that a binder having (a) a polymer based on monomers capable of controlling the cell property *as a separate phase* could provide an excellent cell property, as compared to the comparative examples 1 and 2 which polymerized the monomers capable of controlling the cell property, and the monomers capable of controlling the adhesive strength, or the monomers capable of controlling the adhesive strength/coating property in one-step, resulting in a binder having one phase-polymer. (See Table 5, compare rows 8-9 with the rest of the rows; p. 19, lines 2-18). Therefore, the specification supports that a binder according to the present application has superior cell properties as compared to comparative controls.

Finally, with respect to the Examiner's request that Applicants, "in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention (p. 7, Office Action dated November 28, 2006)," Applicants respectfully note that the initial burden is on the Examiner to make a prima facie case. See M.P.E.P. § 2142. In making his case, the Examiner has not hitherto required that Applicants provide complete translations of any of the specific references originally cited by the Applicant by IDS, but Applicants wish it to be known that translations of these references, though not those originally cited by the Examiner, will be provided to the Examiner upon request if so desired.

In sum, the claims are nonobvious over Yoshino in view of Noritake. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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Date: March 28, 2007